



# CALIFORNIA DEPARTMENT OF PUBLIC HEALTH

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## **RESEARCH SCIENTIST SUPERVISOR II (VARIOUS SPECIALTIES)**

**Schematic Code / Classification Code / Classification Specialty / Exam Code**

**LR40 / 5650 / (CHEMICAL SCIENCES) / 2H1DP**

**LR41 / 5651 / (EPIDEMIOLOGY/BIOSTATISTICS) / 2H1BP**

**LR42 / 5652 / (FOOD AND DRUG SCIENCES) / 2H1DR**

**LR43 / 5644 / (MICROBIOLOGICAL SCIENCES) / 2H1BR**

**LR44 / 5655 / (PHYSICAL / ENGINEERING SCIENCES) / 2H1BS**

**LR45 / 5656 / (SOCIAL / BEHAVIORAL SCIENCES) / 2H1BT**

### **Examination Type: Open Continuous**

#### **FINAL FILING DATES**

Testing is considered continuous as dates can be set at any time. Applications will be reviewed to ensure the minimum requirements for participation in this exam are met. Possession of the entrance requirements does not assure a place on the eligible list. Once you have taken the examination, you may not retest for **12** months from the established list date.

Applications must be submitted by the filing dates indicated below. Applications postmarked, personally delivered, or received via interoffice mail after the final filing date, will be held for the next administration of the exam. The filing dates are:

**February 10, 2017**

**May 10, 2017**

**August 10, 2017**

**November 10, 2017**

**February 12, 2018**

## **SALARY**

**\$8728-\$10872 per month**

## **EQUAL EMPLOYMENT OPPORTUNITY**

The State of California is an equal opportunity employer to all, regardless of age, ancestry, color, disability (mental and physical), exercising the right to family care and medical leave, gender, gender expression, gender identity, genetic information, marital status, medical condition, military or veteran status, national origin, political affiliation, race, religious creed, sex (includes pregnancy, childbirth, breastfeeding and related medical conditions), and sexual orientation.

## **WHO CAN APPLY**

Persons who meet the minimum qualifications (entrance requirements) as stated on this announcement may take this examination, which is competitive.

## **MINIMUM QUALIFICATIONS**

Either One

Three years of experience in the California state service performing scientific research duties comparable to those of a Research Scientist Supervisor I in the stated specialty or a closely related field.

AND

Possession of a doctoral degree in the stated specialty or a closely related field or a degree of Doctor of Medicine.

Or Two

Two years of experience in the California state service performing scientific research duties comparable to those of a Research Scientist IV in the stated specialty or in a closely related field. (Possession of a recognized professional Board certification in the stated specialty or possession of a master's degree in Public Health or preventive medicine may be substituted for one year of the required experience.)

AND

Possession of a doctoral degree in the stated specialty or a closely related field or a degree of Doctor of Medicine.

Or Three

Five years of progressively responsible research experience in the stated specialty or a closely related field. This experience must have included major responsibility for the design, conduct, and analysis of a large or highly complex and difficult research, and experience in the development, planning, and operation of multidisciplinary, complex, and difficult research program involving coordination of several groups of disciplines, recruitment and training of personnel, budgeting and

accounting of funds, and preparation of major reports and scientific publications. At least three years of this experience must be at a level of responsibility equivalent to that of a Research Scientist Supervisor I.

AND

Possession of a doctoral degree in the stated specialty or in a closely related field.

Or Four

Five years of progressively responsible professional research experience in a field of medical specialization relevant to the stated specialty or a closely related field. This experience must have included major responsibility for the design, conduct, and analysis of complex research, or responsibility for the administration and coordination of large, complex multidisciplinary, or multi-institutional research programs. Two years of approved residency in a medical specialty relevant to the class title may be substituted for one year of the required experience. At least three years of this experience must be at a level of responsibility equivalent to that of a Research Scientist Supervisor I.

AND

Possession of the degree of Doctor of Medicine.

The required degree must have been obtained from a recognized U.S. university or from a foreign university approved by the Bureau of Private Postsecondary and Vocational Education under the provision of California Education Code Chapter 3, Part 59, Division 10.

## **GENERAL QUALIFICATIONS**

In addition to the scope defined on this announcement, candidates must possess essential personal qualifications including integrity, initiative, dependability, good judgment, ability to work cooperatively with others, and a state of health consistent with the ability to perform the assigned duties of the class. A medical examination may be required.

## **POSITION DESCRIPTION**

### **TYPICAL TASKS**

Under broad administrative direction, the Research Scientist Supervisor II is responsible for the supervision of Research Scientists I, II, III and IV and Research Scientist Supervisors I. Incumbents serve as second-level supervisors responsible for a moderate group of scientific and nonscientific staff composed of supervisors and nonsupervisors, typically totaling nine to fifteen professional State and/or contract employees. Programs with high visibility requiring unique scientific expertise in which the incumbent has independent science-based decision-making responsibilities on a statewide level may supervise fewer personnel. Incumbents provide administrative guidance and leadership in planning, organizing, and directing difficult and complex major original scientific research studies or public health investigations that have broad statewide scientific scope, high sensitivity, and policy impact; make original, independent decisions on complex scientific problems using scientific theories and principles on association and risk and then develop hypothesis on causes and also test these hypotheses; conceive, plan, and conduct scientific research work of large scope on a statewide or

national basis, that has extreme difficulty and complexity in unexplored areas of public health. The incumbent's work involves high levels of uncertainty and a balancing of conflicting interest of extreme intensity. The results of their applied research are used in public health prevention and control programs. Incumbents use their scientific expertise to plan, direct, and execute major professional public health research studies. Provide evaluations and scientific recommendations made by the incumbent as those of a scientific expert; and direct the analysis of all relevant, available, scientific, technical, medical, and other information from sources within and outside the organization, and direct the integration of this information into the decision-making process. Incumbents direct the development of proposed scientific research studies to evaluate new public health strategies if relevant information is not available; consult with department management and others in areas appropriate to their qualifications and participate in the development of public health policy; provide scientific technical expertise in a science area appropriate to their educational qualifications and provide consultation to departmental management and others as requested; direct the publication or presentation of scientific research or investigations conducted on a statewide basis to state public health experts and the community; and perform other related work.

### **CHEMICAL SCIENCES:**

Incumbents in this parenthetical are distinguished from other Research Scientists by being required to analyze and draw conclusions from research studies of chemistry as related to public and environmental health. This work requires broad knowledge of chemistry in the areas of analytical chemistry, physical chemistry, organic chemistry, and biochemistry. Scientific research and investigation can also be conducted in pharmacology, toxicology, drug chemistry, food chemistry, biochemistry, environmental chemistry, clinical chemistry, immunochemistry, and molecular biology. Research study conclusions are used to improve detection and identification of chemicals and biochemicals including toxic chemicals, metabolites, nutrients, pharmaceuticals, and enzymes; assess environmental fate and transport of chemical pollutants; assess exposure pathways and body burdens of chemical pollutants in humans and biological receptors; assess relationships between body burdens and resultant health or ecological effects; to evaluate environmental or human exposures, effects, or risks; and investigate methods and technologies that have the potential to prevent adverse public and environmental health effects of chemical exposures.

### **EPIDEMIOLOGY/BIOSTATISTICS:**

Incumbents in this parenthetical are distinguished from other Research Scientists by being required to design, conduct, analyze, and draw conclusions from epidemiologic or biostatistical investigations. These investigations apply statistical and survey techniques and biologic theory for the purpose of describing and understanding the distribution and determinants of disease, health, and genetic conditions in the population and the response of the health care system. Subspecialties focus on infectious agents (general communicable diseases, zoonotic diseases, food borne diseases, vector borne diseases): nutrition and lifestyle factors; social or environmental factors; health promotion; chemical and physical agents in the environment; chronic diseases and injuries; detection, distribution, and treatment of genetic disorders; other genetic influences on disease; and the efficacy of public health, clinical medical, and other interventions in modifying these influences. Scientific research, disease surveillance, and epidemiologic-based investigations are conducted to identify the source of human illness or injury, to prevent or control its occurrence, and to measure the

effectiveness of those controls. Scientific research, disease surveillance, and epidemiologic investigations could evaluate the entire ecology of illness occurrence at the molecular or genetic level using molecular epidemiology.

### **FOOD AND DRUG SCIENCES:**

Incumbents in this parenthetical are distinguished from other Research Scientists by being required to analyze and conduct research studies on food, cosmetic, and consumer product safety, and drug and medical device consumer product safety and effectiveness. Subspecialties in this parenthetical focus on food product safety, drug product safety, cosmetic product safety, or medical device product safety. Work in a subspecialty requires advanced knowledge in a specific area of food microbiology, nutrition, food technology, food biochemistry, food or drug chemistry, drug pharmacology, biomedical device engineering sciences, or risk assessment. Research studies and investigation conclusions are used to ensure the production of safe foods, drugs, cosmetics, and medical devices. In food borne illness outbreaks, investigations are conducted and, using scientific risk assessment procedures, the potential sources of contamination are identified and controlled through scientific research on the source of contamination and the implementation of new food manufacturing procedures. Incumbents, working in drug, cosmetic, or medical device safety have knowledge of the technologies used to uniformly assure the safety and effectiveness of these consumer products; locate, review, and evaluate current relevant scientific information and expert opinion to determine whether investigational new drug or device studies are adequately designed and controlled to generate scientifically valid and useful data; consult with other scientists, evaluate scientific data, and recommend necessary control measures to minimize adverse health outcomes; and verify that all scientific data submitted in support of industry claims is accurate and that foods and cosmetics are safe and drugs and medical devices are safe and effective.

Must meet the requirements to be commissioned by the United States Food and Drug Administration (FDA) prior to appointment to the position.

### **MICROBIOLOGICAL SCIENCES:**

Incumbents in this parenthetical are distinguished from other Research Scientists by being required to analyze and draw conclusions from research studies of the microbial, viral, and immunologic aspects of infectious diseases. Work in a subspecialty requires broad knowledge in a specific area of bacteriology, parasitology, mycology, virology, microscopy, molecular biology/microbial genetics, food, and water microbiology. Research study conclusions are used to improve detection and identification of infectious disease-causing microorganisms; define mechanisms and modes of infectious disease transmission; identify mechanisms of tissue injury; support improved investigation of infectious disease outbreaks; and improve methods to prevent infectious disease transmission.

### **PHYSICAL/ENGINEERING SCIENCES:**

Incumbents in this parenthetical are distinguished from other Research Scientists by being required to analyze and draw conclusions from research studies of the physical and engineering sciences relevant to public and/or environmental health. This work requires broad knowledge in Physical/Engineering Sciences in areas such as non-industrial indoor air quality, community air quality, occupational air quality, air pollution control, mechanical or ventilation engineering,

atmospheric pollution, atmospheric physics, microscopy, material sciences, and industrial hygiene. Engineering and physical science research and investigations can be conducted in areas such as radiation safety, environmental safety, occupational safety, and water safety. Research study conclusions are used to improve detection and identification of physical agents of public and/or environmental health significance; identify sources, environmental fates, and transport of physical agents; assess exposure pathways and body burdens of physical agents in human and biological receptors; assess the relationships between body burdens and resultant health and ecological effects; and investigate technologies which have potential to protect public health and the environment from effects of exposures to physical agents. Incumbents provide consultation to industry and other governmental agencies on the scientific technological aspects of water safety, radiation safety, environmental safety, and occupational safety as appropriate to technical expertise.

## **SOCIAL/BEHAVIORAL SCIENCES:**

Incumbents in this parenthetical are distinguished from other Research Scientists by being required to apply the theoretical models and research methods of the social/behavioral sciences, particularly the disciplines of psychology, sociology, anthropology, economics, and political science as they relate to public health issues. Work in this parenthetical requires knowledge in one or more of these disciplines to conduct analyses of personality, community, cultural, family, economy, and policy on health, health behavior, treatment, and disease prevention in California. This specialty carries out scientific work related to the evaluations of public health programs. Among the factors the incumbent examines for health behavior implications are: social and economic trends, race, social and economic inequality, economic impacts and cost factors of policies, ethnic diversity, personality and psychological factors, individual and organizational performance, community dynamics and structure, and community and statewide decision making and policy development. The results of this research would be used in developing new effective public health prevention programs focused on preventing unhealthful behaviors and promoting health by behavior modification through health education.

## **HOW TO APPLY**

To apply for this examination, please complete and return the following:

### **STANDARD STATE APPLICATION (FORM 678)**

### **COPY OF UNOFFICIAL/OFFICIAL COLLEGE TRANSCRIPTS**

### **[Supplemental Application](#)**

Applications and any additional documents must be submitted via the U.S. Postal Service or hand delivered to the Department of Public Health Human Resources Office (hours are 8:00 AM to 5:00 PM). Submit ([California State Application STD 678](#)) and any additional documents to:

DEPARTMENT OF PUBLIC HEALTH  
Examination Services Unit  
1615 Capitol Ave., 4<sup>th</sup> floor, Suite 73-430  
P.O. Box 997378 MS 1700 – 1702  
Sacramento, CA 95899-7378



**DO NOT SUBMIT APPLICATIONS**  
TO THE CALIFORNIA DEPARTMENT OF HUMAN RESOURCES (CalHR)  
THROUGH EMAIL  
THROUGH FAX  
THROUGH INTER-AGENCY MAIL

## **CONTACT INFORMATION**

All questions regarding the minimum qualifications, applying for the examination, being scheduled for the examination, reasonable accommodations, the examination components, scoring, etc., may be directed to the contact information below:

**PHONE NUMBER: 916-322-4460**

## **EXAMINATION INFORMATION**

The examination will consist of a Supplemental Application that is weighted 100%. The Supplemental Application has been designed to elicit specific information regarding each candidate's education and experience relative to the testing classification. Responses to the application will be assessed based on pre-determined rating criteria. In appraising the relative qualifications of candidates, consideration will be given to the extent and type of pertinent experience and education over and above what is minimally required.

The Department of Public Health reserves the right to revise the examination plan to better meet the needs of the service if the circumstances under which this examination was planned change. Such revision will be in accordance with civil service law and rules and all competitors will be notified.

## **REQUIREMENTS FOR ADMITTANCE TO THE EXAMINATION**

It is your responsibility to make sure you meet the education and/or experience requirements stated on this announcement on the date you submit your application. Your signature on your application indicates that you have read, understood, and possess the basic qualifications required.

NOTE: Applications must include "to" and "from" dates (month/day/year), time base, job titles and/or civil service class title(s), and range (if applicable) for all work experience. College course Information must include title, number of semester or quarter units, name of institution, completion dates, and degree. Applications received without this information will be rejected. Applicants must submit a copy of unofficial/official transcripts along with the application when using education to meet the entrance requirements for this examination.

**SCOPE OF EXAMINATION:** Ratings will be determined based on the depth and breadth of professional education and experience beyond what is minimally required. Emphasis will be placed on measuring:

### **Knowledge of:**

1. Data management.

2. Current scientific literature applicable to the research area.
3. Preparation of scientific reports.
4. Basic research methodologies.
5. Study design.
6. Laboratory sampling techniques.
7. Population sampling techniques.
8. Statistical software applications.
9. Database design.
10. Surveillance methods.
11. Research proposal development and/or grant preparation.
12. Operational definitions of scientific measures.
13. Evaluation principles.
14. Quality assurance and quality control methods and procedures.
15. Scientific principles.
16. Key concepts in philosophy of science.
17. The fundamental information resources in one's specialty field.

### **Skills to:**

1. Write effectively for various purposes.
2. Communicate orally to various audiences.
3. Evaluate and apply estimation techniques and avoid bias in research results.
4. Execute statistical analyses using software packages.
5. Maintain professional and scientific integrity.

### **Ability to:**

1. Perform elementary statistical analysis.
2. Perform literature review.
3. Write scientific reports and manuscripts.
4. Manage a database.
5. Develop survey instruments to collect information.
6. Perform quality assurance to maintain the integrity of the data.
7. Interpret the validity of scientific information.
8. Interpret the findings of an analysis.
9. Communicate effectively both orally and in writing research findings for various audiences.
10. Apply existing laboratory and/or modeling methods.
11. Collaborate with others.
12. Work independently.
13. Apply near real-time field analysis methods.
14. Prepare tables and graphs.
15. Critically evaluate and synthesize a body of scientific information.
16. Develop innovative laboratory and/or modeling methods.
17. Design a database.
18. Identify equipment, supplies, and other resources needed to perform duties.
19. Empirically define and standardize scientific measures.
20. Extract and analyze data for use in complex scientific studies.
21. Listen well and be responsive to requests for assistance.
22. Apply own specialized technical knowledge to others' projects as requested.
23. Provide quality assurance/quality control of existing, new, and modified procedures, equipment, and data.



24. Evaluate statistical software capabilities and limitations.
25. Generate accurate and complete laboratory reports.
26. Evaluate the adequacy of existing programs and feasibility of planned programs.
27. Coordinate and fulfill ad hoc and ongoing data requests.
28. Maintain accurate and complete records and logs.
29. Develop appropriate recommendations/solutions based on an analysis of a problem.
30. Prepare budget recommendations for equipment, supplies, and other resources needed to perform duties.
31. Act as a project lead.
32. Provide scientific guidance to colleagues.
33. Contribute to a positive professional collaborative work environment.

*NOTE: Please be aware that not all KSAs are required for each specialty.*

## **ELIGIBLE LIST INFORMATION**

In order to obtain a position on the eligible list, a minimum rating of 70% must be attained. Names of successful competitors are merged into a departmental open list established for use by the California Department of Public Health in order of final scores regardless of testing date. Eligibility expires **24** months after it is established unless the needs of the service and conditions of the list warrant a change in this period. All candidates meeting the minimum qualifications will be placed on the eligible list.

## **VETERAN'S PREFERENCE**

Will be awarded in this examination, pursuant to Government Code Section 18973.1, effective January 1, 2014, as follows: 1) Any veteran, widow or widower of a veteran, or spouse of a 100 percent disabled veteran, who achieves a passing score in an entrance examination, shall be ranked in the top rank of the resulting eligibility list. Any veteran who has been dishonorably discharged or released is not eligible for veterans' preference; 2) An entrance examination is defined, under the law, as any open competitive examination; 3) Veterans' Preference is not granted once a person achieves permanent civil service status.

## **HOW TO APPLY FOR VETERANS' PREFERENCE**

The [California State Jobs' website](http://www.jobs.ca.gov) ([www.jobs.ca.gov](http://www.jobs.ca.gov)) has information on how to apply for Veterans' Preference on their website and on the [Application for Veterans' Preference form \(CalHR 1093\)](https://jobs.ca.gov/PDF/SPB1093.pdf) (<https://jobs.ca.gov/PDF/SPB1093.pdf>). Additional information is also available at the [Department of Veterans Affairs website](http://www.cdva.ca.gov) (<http://www.cdva.ca.gov>).

TDD is Telecommunications Device for the Deaf and is reachable only from phones equipped with a TDD device.

The California Relay (Telephone) Service for the deaf or hearing impaired:

MCI from TDD: 1-800-735-2929 MCI from voice telephone: 1-800-735-2922

Sprint from TDD: 1-888-877-5378 Sprint from voice telephone: 1-888-877-5379

## CONDITIONS OF EMPLOYMENT (631)

### Examination Title: Research Scientist Supervisor II (Various Specialties)

Name: \_\_\_\_\_ (Print: first, middle initial, last)

Final Filing Dates:

**February 10, 2017**

**May 10, 2017**

**August 10, 2017**

**November 10, 2017**

**February 12, 2018**

If you are successful in your examination your name will be placed on the active employment list and certified to fill vacancies according to the conditions you specify on this form. If you are unwilling to accept work or do not reply promptly to communications your name will be placed on the inactive list.

Locations in which you are willing to work:

Please check your choices - you will not be offered a job in locations not checked.

Contra Costa County (0700) \_\_\_\_\_

Los Angeles County (1900) \_\_\_\_\_

Sacramento County (3400) \_\_\_\_\_

#### TYPE OF EMPLOYMENT DESIRED:

##### ON A PERMANENT BASIS, I AM WILLING TO WORK:

- ☐ Full Time
- ☐ Part Time (regular hours less than 40)
- ☐ Intermittent (on call)
- ☐ Limited Term

##### ON A TEMPORARY BASIS, I AM WILLING TO WORK:

- ☐ Full Time
- ☐ Part Time (regular hours less than 40)
- ☐ Intermittent (on call)
- ☐ Limited Term

It is your responsibility to notify the Department of Public Health, Examination Services Unit, of any changes in your address or availability for employment. All correspondence must include your name, examination title, and identification number.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_